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AUTHOR	Chen, Lih-Mei
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ABSTRACT

The way in which public examinations influence teaching and learning is commonly described as "washback" or backwash. This study examined the nature and scope of the impact of a public examination on English teaching in Taiwan to add to the existing literature on testing washback in an English-as-a-second-language context. The relational research method was used in this research. The target population was junior high school English teachers. Data were collected through a survey and focus group interviews. Bivariate correlation and multiple regression analyses were used to analyze the quantitative data. Content analysis using a note-based technique interpreted the qualitative data. Findings indicate that the public examination associated with educational reform has an influence on teachers' curricular planning and instruction. This washback influence on teachers' teaching attitudes is quite superficial; the washback may influence teachers about what to teach, but not how to teach. Washback influences teaching contents because of the issue of new teaching materials for junior high schools throughout Taiwan. Because of a lack of inservice teacher training, teachers lack knowledge about how to change their teaching methods to align with the new curriculum. Findings lead to recommendations for teacher professional development, a change of the Taiwanese "academic watch" program, mixed ability grouping, and the addition of oral and aural assessment to the examination. (Contains 4 tables and 38 references.) (Author/SLD)

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WASHBACK OF A PUBLIC EXAM ON ENGLISH TEACHING

Lih-Mei Chen, Ph.D.
The Ohio State University

ABSTRACT

The phenomenon of how public exams influence teaching and learning is commonly described as "washback" in language instruction. Literature indicates that testing washback is a complex concept that becomes even more complex under a variety of interpretations on language teaching and learning. Some studies conclude that no simple washback effect occurs (Alderson and Hamp-Lyons, 1996; Watanabe, 1996b), whereas others find powerful determiners of language testing toward classroom teaching (Hughes, 1988; Khaniya, 1990; Herman and Golan, 1991).

Validity, reliability, practicality, and washback are four traditional criteria used for evaluating tests. The purpose of this study was to investigate how washback effect of a reformed public exam influenced teachers' perspectives in their curricular planning and instruction. This study was expected to add to the existing literature on testing washback in an English as a foreign language context.

The relational research method was used in this research. The target population was Taiwan junior high school English teachers. The survey method (a quantitative method) and focus group interviews (a qualitative method) were used to collect data. Data were analyzed in two phases. Bivariate correlation and multiple regression analyses were used to analyze the quantitative data. Content analysis using a note-based technique interpreted the qualitative data.

Findings from this study indicate that the reform public exam has an influential impact on teachers' curricular planning and instruction. However, such a washback influence on teachers' teaching attitudes is quite superficial; that is, the washback may influence teachers what to teach but not how to teach. The reason for why it influences teaching contents is because of the issuance of new teaching materials for nation-wide junior high schools. Due to the lack of in-service teacher training, teachers lack knowledge of how to change their teaching methods to align with the new curriculum. Based upon the findings, this study makes the following recommendations: 1) provide teachers with extensive professional development opportunities, 2) change the "academic watch" policy, 3) practice mix-ability grouping instead of achievement grouping to group students, and 4) include oral and aural assessment in the test.

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INTRODUCTION

Public exams, synonymous with external tests, are tests administered and scored by external agencies or forces to evaluate learning products or results with a decisive consequence or influence on test-takers. Public exams are often used as instruments to select students as well as a means to control a school system, especially when the educational system is driven by tests or exams (Cheng and Falvey, 2000; Herman, 1992; Smith et al, 1990); public exams are commonly believed to have an impact on teaching and learning. Given that external tests or public exams have exerted an influence on teachers and students with an associated impact on what happens in classrooms, such phenomenon is denoted as "washback" or "backwash" (Davies, 1968; Alderson, 1986; Morrow, 1986; Pearson, 1988; Hughes, 1989; Morris, 1990).

The studies, comparing secondary school exams in eight countries by Eckstein and Noah (1993), indicated how external exams influenced the degree and depth of teaching and learning.

> They (students in Mainland China) have had little incentive to study anything that will not be on the examination paper. There is no time in their classes to explore questions that are unlikely to come up in the tests. Classes are devoted to lectures and recitations, and homework consists of reviewing notes and textbook (p. 53).

Although a great body of studies, related to the effects of public exams as well as the relationships between public exams and language instruction, has been carried out in recent decades (e.g., Alderson, 1986; Smith, 1991b; Shohamy, 1993), no definitive influence has been reported (e.g., Cheng, 1995; Watanabe, 1996a and 1996b).

In Taiwan, with its measurement-led system, impact from testing washback is expected whenever public language exams are introduced. However, whether the entrance exams may hinder or promote innovation needs to be examined empirically. This is largely due to a limited body of research that studies the washback impact of public exams on teaching and learning so that the results of the research offer insufficient evidence to explain whether and how washback occurs. Thus, this study was designed to examine the nature and scope of the impact of a public exam on English teaching in Taiwan in order to add to the existing literature on testing washback in an English as a foreign language context.

RESEARCH CONTEXT

In Taiwan, English education in junior high school is mandatory. The Ministry of Education compiles, develops, and publishes textbooks and teaching materials for nationwide public junior high schools. All junior high schools, with very few exceptions, follow the curriculum standards and textbooks.

Traditional English education in Taiwan placed an emphasis on reading skills. Historically, focusing English education on reading was to cultivate students' translation abilities to help students read and translate materials written in English. Most junior high school English teachers used the grammar translation teaching method in their classrooms to meet the expectations of the national curriculum.

The old curriculum, developed in 1985, was under serious criticism for not providing an adequate level of basic oral and aural communication competences for junior high school students after they had studied English for three years. Thus, the Ministry of Education in Taiwan began working actively to reform junior high school English education. The revised curriculum was introduced in 1994, following by the issuance of the new textbooks in 1997. The revised curriculum places an emphasis on promoting students' communicative competence. Starting from 2001, a reformed entrance exam, the Basic Competence Test (BCT), has replaced the previous Joint Secondary School Entrance Exam in order to align with the new curriculum.

THEORECTICAL BACKGROUND

Washback and Teachers' Perceptions

The findings from a survey study in Nepal, conducted by Herman and Golan (1993), reported that over 50% of the teachers admitted that they would give substantial attention to mandated tests in their instructional planning and delivery. In devising their syllabi for instruction, they would look at prior tests to assure that they covered the subject matter of the test or test objectives.

A longitudinal study, examining how washback of public exams impacted English teaching in Sri Lanka, provided insights into the relationship between teachers' perceptions of teaching contents and public exams (Wall and Alderson, 1996).

> "A number of teachers, however, consistently skip over the listening lessons in their textbooks, because they know that listening will not be tested in the exam. Other teachers may 'do listening', but in a way that does not resemble the textbook designers' intentions. One teacher, for example, admitted that he only covers the listening lessons if the type of question that students have to answer resembles an item type that might appear in the examination for reading" (p. 216-217).

Shohamy (1993), in a study examining the impact of the new oral test, found out that ample new materials produced after the release of the new test results in Israel were mostly clones of the new test format. Watanabe (1996b), in a study focused on investigating the relationship between university entrance exams and teaching approaches in Japan, also found out that all the textbooks used by the observed teachers were consisted of past exam papers and materials which were constructed by the teachers on the model of past exam papers.

A great number of teachers researched in a study conducted by Shohamy et al. in 1996, admitted that they were motivated to implement activities to promote their students' skills for the test. Cheng (1995), observing teachers using old syllabuses and others using new ones in a study conducted in Hong Kong, found that these two types of teachers did adopt different types of activities to fit into their syllabi.

A change of how teachers would evaluate their students due to the influence of public exams was found in an empirical study regarding the new EFL test in Israel. According to Shohamy et al. (1996), "the rating scales which measure accuracy and fluency will be changed slightly and a new scale of task orientation will be added" (p. 307).

Wall and Alderson (1996) indicate that under negative washback, "teachers would use whatever methodology they felt most expedient to help them to prepare their students for the examination" (p. 200). Some aspects of teaching methods that were thought

inefficient for preparing the students for the examination by the teachers might be neglected.

Factors Impact Teachers' Perceptions of External Tests on Teaching

Public exams may affect on one aspect of teaching, but not another (Alderson and Wall, 1993; Blewchamp, 1994) or it may affect some teachers in different ways than it does others (Alderson and Hamp-Lyons, 1996). The degree that teachers perceive the impact of public exams on their teaching may depend on a variety of factors. These factors can be classified into teacher characteristics and context characteristics.

Teacher characteristics

A great body of recent studies investigating the relationships between public exams and EFL instruction have provided evidence that teachers' teaching experience is one of the major factors for why washback happens to some teachers, but not to others (e.g., Cheng, 1995; Shohamy, et al., 1996; Watanabe, 1996a; Watanabe, 1996b). A significant finding from examining experienced and novice teachers by Shohamy et al. (1996) showed that experienced teachers were more sensitive to public exams and thus were more likely to turn to the test as their main source of guidance for teaching and to use test-oriented materials.

"In second language teaching, teacher education programs typically consist of a knowledge base drawn from linguistics and language learning theory, and a practical component based on language teaching methodology and opportunity for practice teaching" (Richards and Nunan, 1990, p. 49-50). Teachers who majored in theoretical linguistics at postgraduate level might teach differently from those who obtained a B.A. degree from teacher college/university or those who obtained a B.A. degree from a general university (Watanabe, 1996a and 1996b).

Teachers' fear and the associated guilt, shame or embarrassment of poor results from their students' performance in public exams might lead teachers to teaching to the test (Alderson and Wall, 1993). "A large number of teachers help students cope with the exams in order to preserve their reputation as good teachers. This situation is unavoidable because of the extrinsic values of exams" (Khaniya, 1990, p. 51).

Teachers who are aware of public exams, particularly the formats or contents to be tested, are more likely to perceive the impact of public exams on their instruction (Alderson and Wall, 1993). According to Hughes (1988), teaching for the test becomes teaching towards the proper objectives of the course. Exam coaching seems inevitable especially when teachers have more awareness of contents, skills, and/or formats to be tested in exams.

A test will have strong washback if it is associated with a reputable or well-known organization (Gates, 1995). The amount and type of washback will vary according to the status of the test or the level of the stakes (Alderson & Hamp-Lyons, 1996). High-stakes testing is used for important decisions and thus has more power to modify local behavior compared to low-stakes testing. Low-stakes testing is generally not anticipated to be central to decision-making so that the test performance usually does not stimulate significant reward or sanctions (Madaus, 1985).

The other teacher factors, gender and the frequency of participating in in-service teacher education programs, are often associated with teaching variation. Teacher

characteristics are usually considered as the main factors that are measured to predict and explain to what extent teachers perceive the impact of public exams on their curricular planning and instruction.

Context characteristics

In the study of effects of two state testing programs on curriculum and instruction, Wilson and Corbett (1991) indicated that district variation or community demographics, including the size and location of the community (urban, suburban, or rural) where the schools were located, contributed to the explanatory power of testing effects.

Teachers who were teaching the upper-level students reported to focus their teaching more exclusively on the skills that would be tested in the exam than lower-level teachers because the students in the upper level were closer to take the exam (Shohamy, et al., 1996). Similarly, Alderson and Wall (1993) also found out that teachers in the upper grades were more inclined to model instruction to meet the objectives of public exams.

Students, particularly those with high orientation toward success or toward avoidance of failure in the public examination, would expect their teachers to cover what will be tested. Students' learning attitudes, thus, may influence teachers' curricular and instructional knowledge (Beattie, 1995).

Herman and Golan (1991 and 1993), in their study comparing teachers' perceptions of the effect of standardized testing, reported that teachers in schools with increasing test scores felt more pressure to improve their students' test scores from different external sources than teachers in schools with stable or decreasing scores did. The external sources included their principals, other school administrators, other teachers, parents, the community, and/or the media.

Class size is one of the context factors which may indirectly influence teachers' teaching (Watanabe, 1996a). Context factors are usually regarded as minor factors in explaining why teachers perceive the level of the impact of public exams on their instruction differently.

METHODOOLOGY

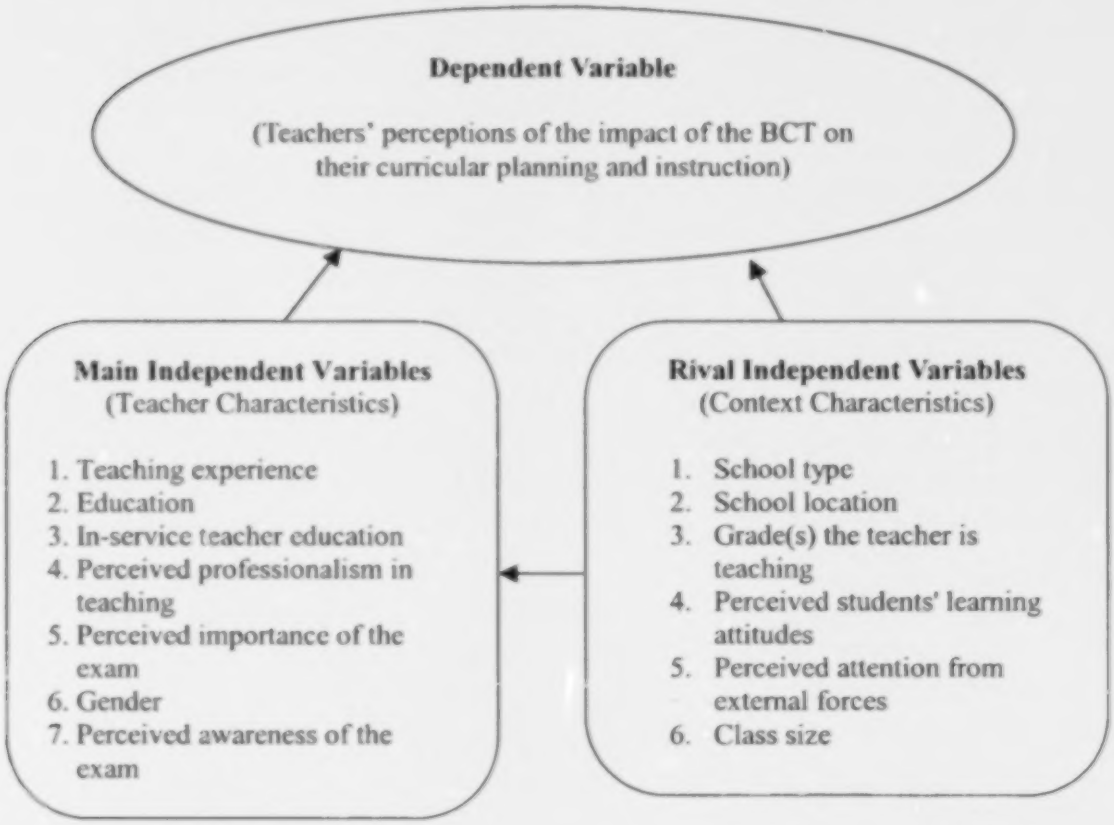
The research method in this study is Ex Post Facto research, a type of relational research, with an aim to obtain data in order to test the hypotheses and answer the research questions. A relational study usually begins with specific hypotheses. The end sought is to explain and predict relationships between variables (Miller, 1999).

In order to facilitate the investigation related to how junior high school English teachers perceived the impact of the BCT on their curricular planning and instruction in Taiwan, the following research questions were formulated.

- What are the teachers' perceptions of the impact of the BCT on their curricular planning?
- To what extent does the BCT influence the teachers' teaching?
- What is (are) the intervening variable(s) that influence(s) the teachers' perceptions of the impact of the BCT on their curricular planning and instruction?

Figure 1 presents the investigated relationships among the variables suggested by literature.

Figure 1: Relationships among dependent variables and independent variables


Dependent Variable
(Teachers' perceptions of the impact of the BCT on their curricular planning and instruction)
Main Independent Variables
(Teacher Characteristics)
1. Teaching experience
2. Education
3. In-service teacher education
4. Perceived professionalism in teaching
5. Perceived importance of the exam
6. Gender
7. Perceived awareness of the exam
Rival Independent Variables
(Context Characteristics)
1. School type
2. School location
3. Grade(s) the teacher is teaching
4. Perceived students' learning attitudes
5. Perceived attention from external forces
6. Class size

Population and Sampling

The target population was junior high school English teachers in Taiwan. Since the Education Statistics of Taiwan did not provide a frame of the names of all junior high school English teachers, an estimated method based upon the total number of classes and average classes a teacher taught was used to calculate the target population. Cochran's formula (Cochran, 1977) was used to determine an appropriate sample size of 100 subjects for 95% confidence. According to multistage sampling, the first stage used a cluster random sampling technique to select schools. Then, all English teachers teaching at the randomly selected schools were requested to respond to the survey questionnaire. Totally, 151 teachers, teaching in the 11 randomly selected schools, were requested to respond to the questionnaire.

As to the sampling procedure for the focus group interviews, all interviewed teachers were purposefully selected from Taiwan's junior high schools. Three groups of teachers, with five participants in the first group, six in the second group, and five in the third groups, were interviewed. The participants had the following characteristics:

- The participants were currently teaching English at junior high schools in Taiwan, so they could provide the needed information related to the research

topic.

- The participants were volunteers. They were willing to discuss the topic without force (Krueger, 1994).

Instrumentation

For the survey questionnaire, the first part of the questionnaire was related to how teachers perceived the impact of the BCT on their curricular planning and instruction. The second part of the questionnaire was about the factors commonly associated with the level of teachers' perceptions of the impact of the BCT on their curricular planning and instruction. The third part of the questionnaire was related to teacher personal and context characteristics. Internal consistency reliability coefficients for the first part of survey questionnaire were .87 and .68 for the second part. A panel of experts and a field test established content validity. Thus, measurement error was controlled.

A focus group discussion guide regarding the questioning route, moderator's guide, and discussion outline, based upon suggestions from Higgenbotham and Cox (1979) and Kureger (1994), was developed in advance to provide the direction for group discussion. A field test was conducted to check appropriateness of the questions and interview guide.

Data Collection

The interviews were conducted in April 2001. Interview assent was obtained from all of the participants before the interviews. A focus group discussion guide regarding the questioning route, moderator's guide, and discussion outline was developed in advance to provide the direction for group discussion. The moderator took keynotes and the assistant moderator took detailed notes throughout the discussion, including notes on the participants' body language. All of the interview sessions were tape recorded in order to avoid missing the interviewees' comments.

The survey was conducted from May to June 2001. The teaching and administrative deans of the selected schools were asked to help distribute the questionnaires to each of the English teachers in their schools and to collect the data. Fifteen percent of the subjects from the non-respondents were randomly selected and contacted individually to complete the questionnaire in order to control the non-response error by making a statistical comparison between them and the respondents.

Data Analysis

Descriptive statistics were used to organize and summarize the data. Bivariate correlation analysis was used to determine the direction and magnitude of the relationships among each of the independent variables and the dependent variable. Multiple regression analyses, using a hierarchical entry strategy, examined the relationships among the independent variables and the dependent variable.

The note-based content analysis interpreted data collected from the focus group interviews. In order for analysis to be verifiable, the data stream began with field notes and recordings that were taken during the interviews, continued with the oral summary of key points during the interviews, went into the debriefing with the moderator team immediately following the interviews, and also included the electronic recording with the possibility of a translation of the interviews (Krueger, 1994). The appropriateness of

note-based content analysis for the focus group interviews was established via member check and debriefing.

FINDINGS

When asked to what extent the BCT was perceived to influence their curricular planning and instruction, all of the interviewed teachers admitted that the BCT influenced their curricular planning and instruction because English education in Taiwan's junior high schools was greatly driven by measurement, especially by the joint public entrance exams. The teachers pointed out that they had to change their curricular planning and instruction to a certain extent in order to meet the new testing syllabus. Table 1 shows the major perceived changes of the teachers' curricular planning and instruction.

Integration of Oral and Aural Teaching

Unlike previous teaching which focused upon promoting students' reading and writing skills, teachers integrated speaking and listening teaching into their classes, especially the listening skill. As shown on Table 1, all of the teachers interviewed indicated that they included listening and/or oral activities in their instruction. The reason given was that the student's listening abilities were assessed by a united district-wide test once a month. Some senior high schools required students to take listening and oral tests developed by each individual senior high school and used the test scores as a part of the admission criteria. One interviewed teacher indicated that she was not sure whether her change was simply due to the reformed BCT or because of the new policy for junior high school graduates to enter secondary schools.

> I try to integrate speaking and listening into my classroom teaching, especially listening. Some senior high schools require students to take listening and oral tests, developed by each individual senior high school, and use the test scores as a part of the admission criteria. (Female, B.A., two years of teaching experience)

From Grammar Drills toward Real-Life Communication

Over 87% of the teachers indicated that the content or format of the BCT was perceived to be more real-life oriented compared to the previous Joint Secondary School Entrance Exams (See Table 1). Thus, their teaching was shifted from drilling the students' grammar competence toward promoting the students' communication competence. Contextual reading was emphasized in the class teaching, especially when teachers were teaching the third-year of high school students. An interviewed teacher described how she changed her teaching due to the reformed BCT.

> I do not emphasize grammar or sentence structures that much now in my teaching because the reformed entrance exam is focused more on testing students' contextual reading ability than grammar knowledge. My focus of English teaching is, thus, to promote my students' contextual reading ability. I encourage my students to use the language for their daily-life communication. For example, I have my students write their journals in English. (Female, B.A., thirteen years of teaching experience)

Focus on Students' Interests and Needs

Over 31% of the teachers considered it important to arouse students' interests to learn the language (See Table 1). They would encourage students to use the language for their daily-life communication. Thus, when they were planning their curriculum and instruction, they considered their students' interests and needs.

Table 1: How were teachers' curricular planning and instruction influenced by the BCT? (n = 16) (multiple responses, not equal 100%)

Factors	Frequency	Percentage
Integrating oral and/or aural skills	16	100.0
More real-life communication	14	87.5
Considering students' learning interests	5	31.3

Large differences existed between the literature and this study in explaining how teacher characteristics and context characteristics influenced teachers' perceptions of the impact of public exams on their curricular planning and instruction. In this study, the way teachers evaluated the status of the BCT ($r = .39$), teachers' perceived professionalism in teaching ($r = .37$), teachers' perceived external forces ($r = .27$), and teachers' participation in in-service teacher education programs ($r = .26$) were found to have low to moderate relationships with teachers' perceptions of the impact of the BCT on their curricular planning and instruction when the other independent variables were not controlled (See Table 2). However, these variables did not contribute significantly to predict how teachers' perceptions of the impact of public exams influenced their curricular planning and instruction when the rival independent variables were controlled (See Table 3). The relationships might be due to the other intervening independent variables. Nevertheless, this study provided evidence that teachers' perceived awareness of the BCT, teachers' perceived students' learning attitudes, and time contributed to predict how teachers' perceptions of the impact of public exams influenced their curricular planning and instruction.

Teachers' Perceived Awareness of the BCT

Findings from this study showed a substantial relationship ($r = .57$) between teachers' perceived awareness of the BCT and teachers' perceptions of the impact of BCT on their curricular planning and instruction when the other independent variables were not controlled (See Table 2). When the dependent variable was regressed on the main independent variables, the proportion of variance explained by the set of main independent variables was .39, which was statistically significant. The semipartial correlation of the dependent variable to the main independent variables was .62 (square root of .39), and teachers' perceived awareness of the BCT was significant in R^2 change. When one unit increased on the scale measuring "perceived awareness of the BCT," there was an estimated increase of 3.00 units on the dependent variable when all other independent variables were controlled. Since the sign of the partial regression coefficient was positive, then there was a positive relationship between perceived awareness of the

BCT and teachers' perceptions of the impact of the BCT on their curricular planning and instruction when all other independent variables were controlled.

Alderson and Wall (1993) pointed out when teachers were more aware of the formats, skills and/or contents to be tested in public exams, their curricular planning and instruction were more likely to be influenced by the washback effect of public exams. The result derived from this study was in accordance with this literature. That is, when teachers were more aware of public exams, specifically the formats, contents, or/and skills to be tested, their curricular planning and instruction were more likely to be influenced by public exams.

Students' Learning Attitudes

Recent literature indicated that tests were commonly assumed to bring about some change in motivation and, thus, in behavior associated with teaching and learning. Learners, particularly those with high orientation toward success or toward avoidance of failure in the public examination, would expect their teachers to cover what would be tested. Students' learning attitudes, thus, influence teachers' curricular and instructional knowledge (Beattie, 1995).

As shown on Table 3, the rival independent variables explained 12 percent of the variance in the dependent variable, but the R^2 value of .12 was not statistically significant at alpha = .05. Thus, students' learning attitudes did not contribute significantly to explain teachers' perceptions of the impact of the BCT on their curricular planning and instruction. Although students' learning attitudes did not contribute significantly to explain teachers' perceptions of the impact of the BCT on their curricular planning and instruction when regressed on the dependent variable, all of the interviewed teachers indicated that students' learning attitudes influenced their perceptions of the impact of the BCT on their curricular planning and instruction (See Table 4). As explained by the teachers, students' learning interests and abilities were interwoven to generate an influence on their learning attitudes. Students with a perceived negative learning attitude were less motivated to perform well on the BCT compared to those students who had a positive learning attitude. Students who were highly perceived to be motivated to succeed in the BCT were more likely to expect their teachers to promote their testing skills and cover as much content related to the BCT as possible, which led teachers to perceiving more impact of the BCT on their curricular planning and instruction. This phenomenon was especially obvious to five of the interviewed teachers who were teaching at a school in which students were assigned to different classes based upon their English competence. They expressed that they would teach more broadly and supplement more test-related materials when teaching higher-level classes.

Time Management

As shown in Table 4, almost 70% of the interviewed teachers indicated that their curricular planning and instruction were constrained by time. Time, coming into its own as an important variable influencing teachers' perceptions of the impact of the BCT on their curricular planning and instruction in this study, could be treated as a contextual factor.

According to the interviewed teachers, high school English teachers were given, on average, three to four hours each week to teach. The teaching was quite textbook-

oriented because the textbooks, compiled and issued by the Ministry of Education in Taiwan and used nation-wide in junior high schools, were regarded as a teaching guide directing teachers in what to teach and how to help their students prepare for the BCT. The instructional time teachers were given was just sufficient to cover major sections of the textbooks. However, they sometimes had used students' extracurricular time to supplement textbook-based learning, such as quizzes and reviews, in order to promote their students' familiarity with the content and test format of the BCT. One teacher interviewed said that time constraint was the major reason for why she was not able to have more communication-oriented activities.

> I would have more aural and oral activities or supplement more information about how to use the language if I had more time. I really would like to involve more time, if I had, in communicative language teaching. And I believe by doing so, it will promote my students' English communication ability and motivate their learning interests. But, I just do not have time. (Female, M.A., three years of teaching experience)

Table 2: Correlation matrix of variables (n = 83)

	Intercorrelations													
Variables	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	Y1
Teaching experience (X1)	1.00	.02	-.07	- .20	- .06	.35	.30	.30	.05	- .02	.08	.05	- .12	.08
Educational background (X2)		1.00	.11	.01	- .02	.14	.05	.18	- .10	- .15	.20	.15	- .13	.11
Perceived awareness of the BCT (X3)			1.00	.41	.25	- .16	- .13	- .03	.00	.21	.06	.10	- .05	.57
Perceived importance of the BCT (X4)				1.00	.32	- .07	.20	.13	.05	.35	.15	.19	.12	.39
Perceived professionalism in teaching (X5)					1.00	- .13	.01	- .13	.04	.56	.03	.06	.11	.37
School type[a] (X6)						1.00	.26	.35	.10	- .16	.00	.26	.37	- .08
School location[b] (X7)							1.00	.29	.00	.04	.12	.32	.40	.03
Teaching grade three[c] (X8)								1.00	- .01	.02	- .10	.20	.31	- .05
Perceived students' learning attitudes (X9)									1.00	.11	- .06	- .07	- .01	.21
Perceived external forces (X10)										1.00	.02	- .08	.06	.27
Gender[d] (X11)											1.00	.44	.22	.05
In-service programs (X12)												1.00	.07	.26
Class size (X13)													1.00	.10
Teachers' perceptions of the BCT (Y1)														1.00

a: 0 = public; 1 = private
b: 0 = Rural; 1 = Urban
c: 0 = Yes; 1 = No
d: 0 = Male; 1 = Female

Table 3: Regression of the dependent variable on rival independent variables and main independent variables (n = 83) (Hierarchical entry)

Variables	R^2	R^2change[b]	B	t
Set of rival independent variables	.12	.12		
Class size		1.56	0.07	0.73
Perceived students' learning attitudes		1.08	0.19	2.15*
Teaching grade 3[a]		-0.26	-0.01	-0.08
Perceived external forces		0.13	0.04	0.38
School location[b]		2.18	0.07	0.73
School type[c]		1.93	0.04	0.35
Set of main independent variables	.50	.39*		
Perceived awareness of the BCT		3.00	0.46	4.65*
In-service teacher education programs		2.34	0.16	1.69
Gender[d]		-0.76	-0.02	-0.20
Teaching experience		1.86	0.15	1.60
Educational background		3.32	0.11	1.15
Perceived professionalism in teaching		0.65	0.20	1.89
Perceived importance of the BCT		0.18	0.09	0.82
(Constant)		43.99		

*p< .05
Adjusted R^2 = .41
For Model: F = 5.37; P< .0001
a: 0 = Yes; 1 = No
b: 0 = Rural; 1 = Urban
c: 0 = public; 1 = private
d: 0 = Male; 1 = Female

Table 4: Factors that influenced teachers' curricular planning and instruction (n = 16) (multiple responses, not equal 100%)

Factors	Frequency	Percentage
Students' learning attitudes	16	100.0
Time	11	68.8
School policy	9	56.3
Grade	8	50.0
Textbook	8	50.0
Teachers' Manuals	7	43.8
Educational background	5	31.3
Teaching experience	5	31.3
Awareness of the BCT	5	31.3
Pressure from different forces	5	31.3
Teachers' personality	4	25.0
Colleagues' suggestions	2	12.5
References	2	12.5
Gender	1	6.3
Class size	1	6.3

DISCUSSIONS

Many studies has pointed out that public exams might affect some aspects of teaching while not affecting others (Alderson and Wall, 1993; Blewchamp, 1994), or it might affect some teachers in different ways than others (Alderson and Hamp-Lyons, 1996). Findings from this study present the following degree of washback effect in Taiwan junior high school English education as a result of the reformed BCT.

Washback on Teaching

In Taiwan, it is often assumed that washback exists to influence teaching and learning to a certain extent whenever a new examination is introduced. Findings from this study support this assumption. That is, the reformed BCT plays an influential role in Taiwan junior high school English teaching because Taiwan junior high school education is greatly driven by measurement, particularly by public exams. Based upon the teachers interviewed, the new BCT objectives affect teachers' teaching in numerous ways.

A crucial influence is that teachers integrate speaking and listening into their classroom teaching. All of the teachers interviewed claimed that they used to teach only reading and writing skills, but now they included oral and aural activities in their teaching. However, such a change might not be simply due to the BCT because the BCT does not test students' listening and speaking abilities. Instead, the change may be due to the change of textbooks and the whole policy for junior high school students to enter secondary schools.

In Taiwan, junior high school teachers tend to rely on textbooks and other curriculum materials, such as workbooks or teachers' manuals, as sources for their lesson plans. The textbooks, compiled and issued by the Ministry of Education, are often adopted as a curriculum, in terms of directing teachers what to teach. One dramatic change of the new textbooks due to the high school curriculum innovation in English education is that speaking and listening earn more concerns. Given such an important role that the textbooks have played in junior high school English education, the change of textbook contents explains why teachers would include listening and speaking in their teaching.

The whole policy change for junior high school students to enter secondary schools holds the other reason for why teachers would include oral and aural activities in their classroom teaching. According to the new policy for junior high school students to enter secondary schools, which is called "Multiple Schemes," promulgated by Taiwan Ministry of Education, junior high school students can be assigned to secondary schools via special selections, recommendations, or test scores of the BCT, unlike the previous case in which junior high school students were assigned to secondary schools based upon only their entrance exam scores. Most secondary schools require those students who are specially selected or recommended to enter secondary schools to take aural and/or oral tests and use the test scores as a part of admission criteria. Thus, teachers are motivated to teach speaking and listening in order to help their students to enter secondary schools via a special selection or recommendation.

Another crucial change of teaching as a result of the reformed BCT is a shift from grammar-based teaching toward more communication-oriented teaching. Message focus is central to the communicative methodology while reading is taught. The teachers interviewed claimed that they stressed context instead of structures while teaching reading, in terms that they cared more about their students' contextual competence rather than grammatical competence. Despite of oral and aural skills untested, a multiple choice test format is adopted in the reformed BCT. How students' communicative competence can be assessed on a paper and pencil test with a multiple choice test format is questionable. Although most of the teachers interviewed claimed that they followed the new testing objectives by adherence to a more communication-based syllabus, it may be interesting to observe to what extent the new syllabus is actually implemented in the classrooms.

The other influence of the BCT on teaching is that students' learning interests and needs earn more concerns when teachers are planning their classroom syllabus. According to the teachers interviewed, students' learning attitudes are associated with their learning interests. Promoting students' learning interests facilitates positive learning attitudes and, thus, promotes learning results, including their performance in the BCT.

All of these changes on teaching due to the reformed BCT, or more correctly the innovated curriculum package, including the curriculum standards, instructional materials and testing objectives, seem to be associated with positive washback. Nevertheless, the extent to which this new examination has changed teaching is quite superficial. In other words, the BCT may dramatically change the contents teachers teach, but not the way they would teach. That is why most teachers' teaching activities are still test-oriented.

Washback on Teachers' Perceptions

All of the teachers interviewed claimed that they had to make a change of their teaching in order to meet the new testing objectives. However, findings from this study do not provide enough evidence that teachers would change their perceptions regarding how to teach. Teachers may have a positive perception toward the innovated curriculum, including teaching materials and the new testing objectives, but yet find it hard to implement it in their classroom. Some of the teachers interviewed claimed that they were not sure of the new test objectives, particularly the test format and contents. Some others claimed that they did not have knowledge about how to implement the new curriculum even though they were aware of the innovated curriculum and testing objectives. They lack opportunities to develop their professions. In this case, teachers do not know how to align the new curriculum with their lesson plans. They, therefore, intend to rely on the curriculum materials, especially the textbooks, as sources for their lesson planning and teaching.

The high-stakes nature of the BCT drives teachers' perceptions of teaching in the direction of teaching for what is required in the exam. That is why a substantial relationship is found between teachers' perceived awareness of the BCT and how they perceive the impact of the reformed BCT on their curricular planning and instruction. When teachers are more aware of the format, skills, and/or content to be tested in the BCT, they are more likely to teach to the test. Teaching activities are designed on a basis of reflecting the test format and contents. Teaching to the test, in this case, leads to the narrowing of curriculum and instruction. In other words, contents or skills untested will not be included in the teaching syllabus.

Such perceptions of teaching also affect teachers' curricular and instructional knowledge across students. According to the teachers interviewed, they would teach more deeply and broadly to the students in higher-level class because these students often have a higher expectation to a success in the BCT and, thus, would expect their teachers to cover as much information related to the test as possible, particularly the contents, skills, and/or format to be tested.

A consequence of BCT-driven instruction leads to instructional time arrangement for the test as well. As all of the interviewed teachers revealed, their curricular planning and instruction were influenced by the BCT to a great extent and their main objective of English instruction was to prepare students for the BCT. Teachers, especially those sensible ones, are very careful to arrange their classroom activities to achieve the requirements of the revised exam objectives.

Whether change is desirable, particularly in cases where successful models from one context are imported into another new context, teachers are key players. According to Morris (1988), why innovations do or do not have their intended effects places primary emphasis on the ability of change agent to overcome the initial resistance of organizational members to change. What teachers would like to change is not necessarily the same as what they actually would do in their classroom (Cheng, 1995). The intention to bring in positive washback simply by a change of the examination format or contents will not necessarily bring out an expected outcome. Other factors that retrain implementation should be taken into consideration before an innovated curriculum is introduced. As Cheng (1999) pointed out,

> If one expects practitioners to change themselves and their students, an environment conductive to such change must be fostered. The teaching context, school environment, messages from the administration, and expectations of other teachers facilitate or detract from the possibility of change (p. 269).

IMPLICATIONS

Based upon the information found in this study, the following recommendations are made for different educational parties.

Provide Teachers with Professional Development Opportunities

Although new curriculum standards related to high school English teaching, developed by the Ministry of Education in Taiwan, have been put into practice for several years, many teachers perceive that they lack knowledge regarding how to align their lesson plans with the new curriculum standards. Given such concern, the Ministry of Education in Taiwan should provide teachers with extensive professional development to understand the new curriculum and how to incorporate them into teachers' lesson planning and instructional practices.

In addition, the Ministry of Education in Taiwan should provide teachers with more training on how to use test data to critique and improve their instruction. These goals can be achieved through the coordination of the normal universities, which provide most of pre-service and in-service teacher education programs. Without professional development aimed at understanding and using test data, teachers may not know how to use this information to improve their instruction.

Change Teacher Monitoring and Evaluation Policy

Teacher evaluation may engage in a more systematic approach to monitoring and evaluating teacher performance. However, if administrators in the evaluation overemphasize testing competitions, it may lead teachers simply to teaching for improving test scores instead of students' learning. Thus, school administrators should work with teachers to help teachers identify their instructional weaknesses with the test data instead of using test results as awards or sanctions to evaluate teachers' instruction.

Practice Mix-Ability Grouping to Group Students

Some of junior high schools in Taiwan still adopt "achievement grouping" with a belief that achievement grouping may facilitate teaching and learning although this kind of grouping has earned a lot of concerns by the public, especially by the educational parties. Achievement grouping is the assignment of students to classes or instructional groups based upon students' level of ability or achievement. In other words, students with same or similar academic achievement are assigned to the same class.

As indicated by the interviewed teachers, achievement grouping more negatively impacted teaching and learning than mix-ability grouping. Students who are assigned to a lower level course are more likely to generate a negative image on their learning and, thus, are less motivated to succeed in the BCT compared to those students in a higher-

level class. All of the interviewed teachers, particularly those who were teaching in a school practicing achievement grouping, admitted that students' learning attitudes influenced their perceptions of the impact of the BCT on their curricular planning and instruction. They had a higher expectation for higher-level students to perform well in the BCT and were more likely to teach to the test. Such a teaching attitude is more or less associated with overemphasized testing competitions in Taiwan educational system. In order to avoid a negative teaching attitude and learning attitude derived from the achievement grouping policy, mixed ability grouping should be broadly practiced.

Include Oral and Aural Assessment

Opponents of high-stakes testing often argue that it encourages teaching to the test and negatively affects students learning. An obvious practice of teaching to the test is often referred to as a narrowing of curriculum and instruction. Narrowing of curriculum and instruction is not easily identified as appropriate or inappropriate. For example, a positive effect is that it guides course of study revisions and lesson planning by emphasizing certain areas of the curriculum or, in other words, it helps teachers sharpen their focus. However, a negative effect is that it decreases the breadth or depth of content and activities to which students are exposed because the test does not emphasize the content or skills that some activities address (Legislative Office of Education Oversight, 2000). Some interviewed teachers claimed that they interrupted their regular classroom instruction in the weeks prior to the test's administration to prepare their students. If the preparation is focused their instruction on the format of the test questions instead of on the underlying learning objectives, the consequence may be higher test scores without improved student learning. Such interruption of classroom instruction is inappropriate. Aural and oral tests should be included in the BCT in order to encourage teachers to integrate communication-based assessment into their classroom evaluation. By doing so, it may mitigate negative effects of teaching to the test, which emphasizes the test format rather than the content and thus might lead to inflated score gains without corresponding improvement in students' mastery of the knowledge and skills being tested.

CONCLUSIONS

The frontloaded curriculum alignment is practiced in Taiwan junior high school English education. That is, the curriculum is developed first; the test is designed to measure how students have learnt based upon the curriculum. One of problems with frontloading alignment is the poor test quality, in terms of lack of validity, reliability, and washback (Smith, 1991b). The main goal of the innovated curriculum in Taiwan junior high school English education is to promote a communicative syllabus in classroom teaching and learning. The BCT should be written to test students' communicative competence on the basis of the innovated curriculum. Due to its multiple choice format and excluding oral and aural test, how students' communicative competence can be assessed is questionable. Thus, finding effective ways to include communicative language goals in oral and aural assessment should increase the match of the curriculum and test. "If a new test or assessment instrument is seen as particularly valid, its availability may exert influence on the statement of desired outcomes and the elaboration

of the curriculum" (Valette, 1994, p. 10). Positive washback is more likely to occur when a curriculum and test are highly matched.

This study has concordant findings to recent literature. Teachers' different perceived levels of awareness of public exams and perceived students' learning attitudes have a crucial influence on teachers' perceptions of the impact of public exams on their curricular planning and instruction. However, several discrepant findings from this study further support that washback is quite context-oriented and complex. Simply examining one factor without a covariance analysis or examining the phenomenon in one context is not capable of explaining critical washback issues, such as how and why washback phenomenon influences some teachers but not others. Thus, further empirical studies should be conducted to provide more insights into the nature of this educational phenomenon across different factors and research contexts. It is recommended that longitudinal studies, such as long-term classroom observations, should be conducted in order to explain to what extent washback actually occurs to influence classroom teaching.

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